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| 09/581,213 | 06/22/2000 | KIYOSHI NISHIO | | 1409 |

7590 12/02/2003
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ARLINGTON, VA 22202

EXAMINER

DUNWOODY, AARON M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3679

DATE MAILED: 12/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/581,213

Applicant(s)

NISHIO, KIYOSHI

Examiner

Aaron M Dunwoody

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4, 6, 7 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4, 6, 7 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

The request for continued examination of this application under 37 CFR 1.114, filed on 11/10/03, is acknowledged.

Claim Objections

Claim 10 is objected to because of the following informalities:

Claim 10 recites, "said axially length"; however, none of the preceding claim language introduces this length. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 6, 7 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites, "sleeve-like inner ring"; but it is not clear to the Examiner whether the ring is ring shaped or sleeve shaped. For examination purposes, the Examiner will interpret claim 10 as "sleeve inner ring".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 6, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 5996636, Fukano et al in view of Fukano et al prior art Figure 8, EP 0380 970 A2, and US patent 5370424, Wendorff.

In regard to claim 10, in figures 1, 6 and 7, Fukano et al discloses a pipe joint made of resin, comprising

a sleeve inner ring (26) which is to be pressingly inserted into one end portion of a pipe member to be integrated with the pipe member (20) under a state where the inner ring protrudes outwardly in an axial direction from one end portion of the pipe member;

a joint body (16) in which a cylindrical receiving port is formed in one end portion, an insertion portion of the pipe member into which the inner ring is pressingly inserted being to be inserted into the receiving port; and

a pressing ring (22) which is to be screwed to the one end portion of the joint body, presses the inner ring from an outer side of the pipe member by means of screw advancement toward the one end portion of the joint body, to cause a projected tip end portion of the inner ring to abut against an inner area of the receiving port of the joint body, thereby forming a sealing portion, wherein:

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the inner ring defines an outer, axially extending surface and the receiving port defines an inner, axially extending surface,

an inner radial face of the projected tip end portion of the outer, axially extending surface of the inner ring being formed as a conical tapered face in which a diameter is larger when further moving toward an outer side in the axial direction of the inner ring,

a cylindrical groove (50) being formed in an inner area of the receiving port of the joint body, the projected tip end portion of the inner ring including the conical tapered face being fitted in the axial direction in the cylindrical groove, and the cylindrical groove cooperates with the conical tapered face to form a secondary sealing portion, and with a place on a side of an outer radial face of the projected tip end portion to form a primary sealing portion,

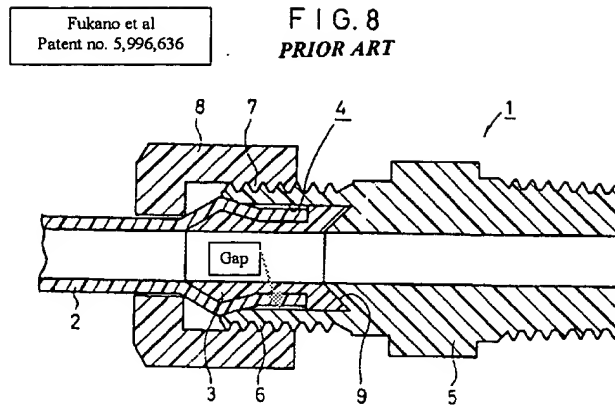
the inclination angle of the conical tapered face of the projected tip end portion of the inner ring with respect to the axis is set to 5 to 20°, and

a cylindrical portion which abuts against an inner peripheral face of a cylindrical portion on an inner radial side of the cylindrical groove of the joint is formed integrally with an inner radial side of the projection tip end of the inner ring, an outer peripheral face of the cylindrical portion abutting against the inner peripheral face of the cylindrical portion on the inner radial side to form a tertiary sealing portion.

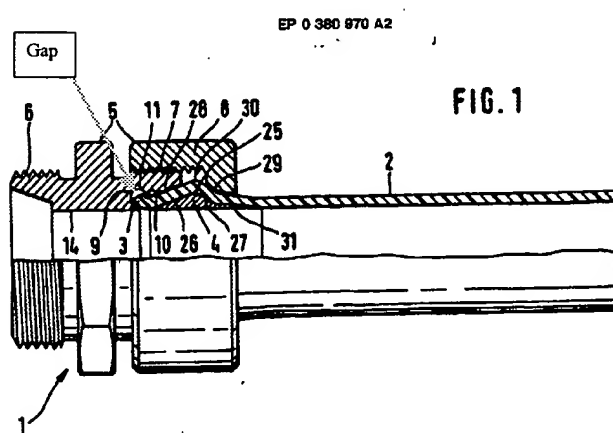
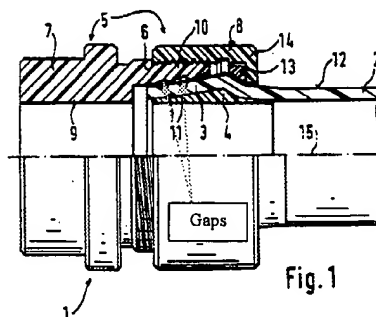
Fukano et al does not disclose both the outer, axially extending surface and the inner, axially extending surface defining a gap between them for at least part of an axial length, such that only the outer, axially extending surface engages a corresponding surface of the pipe member. Fukano et al prior art Figure 8, EP 0380 970 A2, and US

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patent 5370424, Wendorff all illustrate (see figures below) an outer, axially extending surface and an inner, axially extending surface defining a gap between them for at least part of an axial length, such that only the outer, axially extending surface engages a corresponding surface of the pipe member. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the outer, axially extending surface and an inner, axially extending surface defining a gap between them for at least part of an axial length, such that only the outer, axially extending surface engages a corresponding surface of the pipe member, since it was known in the art that a gap can be made between an outer, axially extending surface and an inner, axially extending surface for at least part of an axial length, such that only the outer, axially extending surface engages a corresponding surface of the pipe member.



U.S. Patent Dec. 6, 1994 Sheet 1 of 2 5,370,424



In regard to claim 4, in figures 6 and 7, Fukano et al discloses one or plural projections being projected in a radially outward direction and abut against an inner

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peripheral face of the receiving port of the joint body to form the sealing portion being disposed on the outer radial face of the projected tip end portion of the inner ring.

In regard to claim 6, in figures 6 and 7, Fukano et al discloses the outer radial face of the projected tip end portion of the inner ring being formed as a conical tapered face in which a diameter is smaller as further moving toward an outer side in the axial direction.

In regard to claim 7, in figures 6 and 7, Fukano et al discloses the outer radial face of the projected tip end portion of the inner ring on which the projections being formed being formed as a conical tapered face in which a diameter is smaller as further moving toward an outer side in the axial direction.

In regard to claim 9, in figures 6 and 7, Fukano et al discloses a cylindrical portion abutting against an inner peripheral face of a cylindrical portion on an inner radial side of the cylindrical groove of the joint body being formed integrally with an inner radial side of the projected tip end portion of the inner ring on which the projections are formed.

Response to Arguments

Applicant's arguments with respect to claims 4, 6, 7 and 10 have been considered but are moot in view of the new ground(s) of rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is (703) 306-3436. The examiner can normally be reached on Monday - Friday between 7:30 am to 4:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

.amd


Aaron Dunwoody
Patent Examiner
Technology Center 3670